1. A method comprising:

(a) receiving

    (i) a temporal period π,

    (ii) a first temporal offset ϕ_1 for a first stream of frames queued for transmission by a first device in accordance with said temporal period π, and

    (iii) a second temporal offset ϕ_2 for a second stream of frames that arrives at a second device in accordance with said temporal period π, wherein said second stream of frames is for forwarding to said first device; and

(b) determining a third temporal offset ϕ_3 based on at least one of ϕ_1 and ϕ_2 for a third stream of frames transmitted from said second device to said first device in accordance with said temporal period π, wherein each frame of said third stream comprises a poll and a payload of a respective frame of said second stream.

2. The method of claim 1 wherein said determining said third temporal offset ϕ_3 comprises selecting ϕ_3 from one of

    (i) $\phi_1 - T$, wherein T is a transmission delay for a frame transmitted from said second device to said first device; and

    (ii) $\phi_2 + G$, wherein G is a processing delay associated with generating a frame of said third stream based on a respective frame of said second stream.

3. The method of claim 2 wherein $\phi_1 - T$ is selected for said third temporal offset ϕ_3 when either one of

    (i) $0 \leq (\phi_1 - \phi_2) \leq \pi/2$, and

    (ii) $(\phi_1 - \phi_2) \leq -\pi/2$;

and wherein $\phi_2 + G$ is selected for said third temporal offset ϕ_3 when either one of

    (i) $(\phi_1 - \phi_2) > \pi/2$, and

    (ii) $-\pi/2 < (\phi_1 - \phi_2) < 0$.

4. A method comprising:

(a) receiving

    (i) a polling request from a device, wherein said polling request specifies a temporal period π and a first temporal offset ϕ_1 for a plurality of expected future transmissions, and

    (ii) a first stream of frames from at least one of a plurality of other devices in accordance with said temporal period π and a second temporal offset ϕ_2;

(b) determining a third temporal offset ϕ_3 based on at least one of ϕ_1 and ϕ_2; and

(c) transmitting a second stream of frames to said device in accordance with said temporal period π and said third temporal offset ϕ_3, wherein each frame of said second stream comprises a poll and a payload of a respective frame of said first stream.

5. The method of claim 4 wherein said determining said third temporal offset ϕ_3 comprises selecting ϕ_3 from one of:

(i) $\phi_1 - T$, wherein T is a transmission delay for transmitting a frame to said device; and

(ii) $\phi_2 + G$, wherein G is a processing delay associated with generating a frame of said second stream from a poll and a payload of a respective frame of said first stream.

6. The method of claim 5 wherein $\phi_1 - T$ is selected for said third temporal offset ϕ_3 when either one of:

(i) $0 \leq (\phi_1 - \phi_2) \leq \pi/2$, and

(ii) $(\phi_1 - \phi_2) \leq -\pi/2$;

and wherein $\phi_2 + G$ is selected for said third temporal offset ϕ_3 when either one of:

(i) $(\phi_1 - \phi_2) > \pi/2$, and

(ii) $-\pi/2 < (\phi_1 - \phi_2) < 0$.

7. The method of claim 4 further comprising:

(d) receiving a frame from said device; and

(e) forwarding said frame to at least one of said plurality of other devices.

8. The method of claim 4 further comprising receiving at least one of:

(i) said temporal period π, and

(ii) said second temporal offset ϕ_2.

9. The method of claim 4 wherein said receiving and said transmitting are via a shared-communications channel.

10. A method comprising:

(a) receiving a first frame of a first stream of frames at a time τ_1, wherein said first stream of frames is queued for transmission in accordance with a first temporal period π_1 and a first temporal offset ϕ_1;

(b) determining the time τ_2 at which a second frame of a second stream of frames is queued for transmission, wherein said second stream of frames is queued for transmission

by a device in accordance with a second temporal period π_2 and a second temporal offset ϕ_2, and wherein $\pi_2 > \pi_1$; and

(c) transmitting a third frame comprising a poll and the payload of said first frame to said device at a time τ_3;

wherein τ_3 equals τ_2 minus a transmission delay T when $\tau_2 < (\tau_1 + \pi_1/2)$; and

wherein τ_3 equals τ_1 plus a processing delay G when $\tau_2 \geq (\tau_1 + \pi_1/2)$.

11. The method of claim 10 further comprising (d) receiving at least one of:

(i)   said first temporal period π_1,

(i)   said second temporal period π_2,

(iii) said first temporal offset ϕ_1, and

(iv) said second temporal offset ϕ_2.

12. The method of claim 10 wherein said receiving and said transmitting are via a shared-communications channel.

13. A method comprising:

(a) determining the time τ_1 at which the next frame F_1 of a first stream of frames will be queued for transmission by a device in accordance with a first temporal period π_1 and a first temporal offset ϕ_1;

(b) determining the time τ_2 at which the next frame F_2 of a second stream of frames will be received, wherein said second stream of frames is queued for transmission in accordance with a second temporal period π_2 and a second temporal offset ϕ_2, and wherein $\pi_2 > \pi_1$; and

(c) transmitting a frame F_3 comprising a poll to said device at a time τ_3;

wherein τ_3 equals τ_1 minus a transmission delay T when $\tau_2 \geq (\tau_1 + \pi_1/2)$; and wherein

(i) τ_3 equals τ_2 plus a processing delay G, and

(ii) frame F_3 also comprises the payload of frame F_2

when $\tau_2 < (\tau_1 + \pi_1/2)$.

14. The method of claim 13 further comprising receiving at least one of:

(i)   said first temporal period π_1,

(i)   said second temporal period π_2,

(iii) said first temporal offset ϕ_1, and

(iv) said second temporal offset ϕ_2.

15. The method of claim 13 wherein said receiving and said transmitting are via a shared-communications channel.

16. An apparatus comprising:

(a) a receiver for receiving:

(i)   a polling request from a device, wherein said polling request specifies a temporal period π and a first temporal offset ϕ_1 for a plurality of expected future transmissions, and

(ii) a first stream of frames from at least one of a plurality of other devices in accordance with said temporal period π and a second temporal offset ϕ_2;

(b) a processor for determining a third temporal offset ϕ_3 based on at least one of ϕ_1 and ϕ_2; and

(c) a transmitter for transmitting a second stream of frames to said device in accordance with said temporal period π and said third temporal offset ϕ_3, wherein each frame of said second stream comprises a poll and a payload of a respective frame of said first stream.

17. The apparatus of claim 16 wherein said determining said third temporal offset ϕ_3 comprises selecting ϕ_3 from one of:

(i) $\phi_1 - T$, wherein T is a transmission delay for transmitting a frame to said device; and

(ii) $\phi_2 + G$, wherein G is a processing delay associated with generating a frame of said second stream from a poll and a payload of a respective frame of said first stream.

18. The apparatus of claim 17 wherein $\phi_1 - T$ is selected for said third temporal offset ϕ_3 when either one of:

(i) $0 \leq (\phi_1 - \phi_2) \leq \pi/2$, and

(ii) $(\phi_1 - \phi_2) \leq -\pi/2$;

and wherein $\phi_2 + G$ is selected for said third temporal offset ϕ_3 when either one of:

(i) $(\phi_1 - \phi_2) > \pi/2$, and

(ii) $-\pi/2 < (\phi_1 - \phi_2) < 0$.

19. The apparatus of claim 16 wherein said transmitter is also for forwarding at least one of said first stream of frames to at least one of said plurality of other devices.

20. The apparatus of claim 16 wherein said receiver is also for receiving at least one of:

(i)   said temporal period π ,

(ii) said first temporal offset ϕ_1, and

(iii) said second temporal offset ϕ_2.